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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Roger Fulghum
Baker Botts L.L.P.
One Shell Plaza
910 Louisiana Street
Houston, TX 77002-4995

EXAMINER


CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/621,220	Applicant(s) MISTRY ET AL. 	
	Examiner Daniel J. Cavallari	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/2/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Title

The title of the invention is not descriptive. A new title such as "A Power Connector with AC and DC Power Distribution Capabilities", is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10 and 18 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure that is not enabling. The specification and claims fail to disclose what "safety requirements" are being referenced but yet this information is critical or essential to the practice of the invention. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Claims 10 and 18 recite "... the cutouts are sized to meet safety requirements for power source voltage isolation" however fail to disclose both the size of the cutouts and the safety requirements in which the applicant is referring to. Because of the 112 problems with claims 10 & 18, no art can be applied.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1, 3, 4, & 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation of a "power source connection to power supplies" however it is unclear what the distinction is between a "power source" and a "power supply".

The Specification (See Page 9) discloses "In the information handling system, according to the present invention, at least one modular power supply (180) is coupled to electronic components comprising the aforementioned subsystems through a power distribution board (PDB) (See Figure 1). From this description, the computer components (110, 116, 150 etc.) of the computer system are described as powered by a power supply (180) through the power distribution board (PDB) of the invention. However, the specification goes on to say "The AC input modular power supply 180 may receive power at pins 206 and 212, 206 and 430 or 206 and 432, depending upon what AC power source is connected to the PDB" (See Page 11). The two descriptions contradict each other as now the power supply (180), which was first described as supplying power to the PDB, is now receiving power from the PDB.

The claim will be examined as best understood in which a "power supply" is taken to be an externally provide source of power and a "power source" is

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taken to mean a load, such as a computer as shown in Figure 1 and described in the specification on page 9.

The term "from about" in claims 3 & 4 is a relative term which renders the claim indefinite. The term "from about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Further more, the claim includes a range limitation whereas "from about" is directed to a single voltage. The claims will be examined as best understood in which "from about" is taken to mean "between".

Claim 7 recites the limitation of "wherein some of the connections of the pin coded connectors are common for either the AC or DC power sources". It is unclear what is meant by having connectors "in common" in regards to the "power sources" which have been interpreted to mean loads. The claim will be examined as best understood to mean that "some of the connections of the pin coded connectors are commonly connected to the AC or DC loads"

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the interconnection of the power distribution board (PDB) in connection with the power supply (180) and a "power source" as partially depicted in Figure 1 and disclosed in the specification on Page 9 & 11.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Figures 5-7 are objected to for the following reasons:

- The figures are of poor quality and the reference numbers appear hand drawn making them hard to read. Because of the poor quality, it is difficult to make out the lines to the various reference numbers and the component which it represents

Appropriate action is required.

Claim Objections

Claim 1 recites the limitation of "to at least power source" which is a grammatically incomplete and incorrect sentence.

Claim 7 recites the limitation "the AC or DC power sources" however "AC and DC power sources" are not previously disclosed therefore it is unclear what "the" AC or DC power sources are referring to. There is insufficient antecedent basis for this limitation in the claim.

The claim will be examined as best understood to mean "AC or DC power sources"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 & 6-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi (US 5,777,396).

Kikuchi teaches:

In regard to Claims 1, 12, 13, 14

- Information handling equipment read on by electrographic imaging devices (See Column 1, Lines 9-18)
- A power distribution board (See figures 4 & 5) having pin coded connectors, read on by connectors, read on by 4 (See Figure 2), 110, 220, & 330 (See Figure 4) adapted for coupling to at least one modular power supply (Power Source CCT. 3, See Figure 1 & Column 3, Lines 45-65) wherein the pin coded connectors, (4, See Figure 2) and (300, Figure 3) and (110, 220, & 330, Figure 4), are coupled to the information handling equipment such that at least one modular power supply (3, See Figure 1) powers said equipment (See Column 3, Line 66 to Column 4, Line 31)
- A plurality of conductive layers, read on by (S1, S2, S3) (See Figure 3 & Column 5, Lines 15-37), wherein selected ones of said plurality of conductive layers (S1, S2, S3) couple the pin coded connector (4) to at least one load (See Column 4, Lines 11-47)

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In regard to Claims 2-4

- The power supply selected to be 110V AC or 220V AC.

In regard to Claim 6

- The pin coded connectors (4, See Figure 2) being designated to at least one load (See figure 2 & Column 4, Lines 11-47).

In regard to Claim 7, 16, 20

- Some of the connections, read on by the neutral (J3), being common to the AC load selected, whether it be 110 or 220V AC load (See Figure 2 & Column 4, Lines 11-31) in which the same neutral pin is selected in either case (110V or 220V).

In regard to Claim 8, 19

- The plurality of conductive layers (S1, S2, & S3) (See Column 5, Lines 15-37) being commonly used whether it be a 110 or 220V AC load (See Figure 2 & Column 4, Lines 11-31) in which the same conductive layers (S1, S2, & S3) are used in either case.

In regards to Claim 9, 17

- The information handling system further comprising cutouts, read on by the cutouts 101, 102, 103, 201, 202 & 203, which enable the insertion of

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pins 301, 302, 303 (See Figure 3) between some of the connections of the pin coded connectors.

In regard to Claim 11

- The plurality of conductive layers (S1, S2, & S3) couples the pin coded connectors (4) to other information handling equipment connectors (51 & 52) (See Figure 2 & Column 4, Lines 11-23)

In regard to Claim 15

- Different connection (J1 & J2) of at least one pin coded connector (4) are used for different loads (See Figure 2 & Column 4, Lines 11-47)

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 & 6, 7, 9, 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hogarth et al. (US 5,397,929).

Hogarth et al. (*Hereinafter referred to as Hogarth*) teaches

In regard to Claim 1 & 12-14

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- Information handling equipment, read on by an appliance receiving electrical power and control communications (See Column 4, Lines 26-36).
- A power distribution board (20) (See Figure 1) having pin coded connectors (516, 514, 512) (See Figure 5A) adapted for coupling to at least one modular power supply, read on by voltages 120V AC, 240V AC, & 12V DC (See Column 2, Line 59 to Column 3, Line 12) wherein the pin coded connectors are coupled to said information handling equipment such that at least one modular power supply powers said information handling equipment (See Column 4, Lines 22-36)
- A plurality of conductive layers, read on by the layers of the ribbon cable (22) (See Figure 4) wherein selected ones of said plurality of conductive layers couple the pin coded connectors (516, 514, 512) to at least one load (See Column 2, Line 59 to Column 3, Line 19, Column 4, Lines 22-36 & Lines 49-62)

In regard to Claim 2-4

- The loads selected from the group of alternating current, 120V AC & 240V AC (See Column 2, Line 59 to Column 3, Line 12)

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In regard to Claim 6

- Wherein each of the pin coded connectors (516, 514, 512) have connections designated to at least one power source (120V AC, 220V AC, 12V DC) (See Figure 5D & Column 4, Lines 49-62)

In regard to Claim 7

- Some of the connections of the pin coded connector (540) are commonly connected to the AC or DC loads (See Figure 10B) which discloses a single connector which commonly connects the AC, DC and communication lines to a single connector (See Column 6, Line 65 to Column 7, Line 11)

In regard to Claim 9

- The information handling system further comprising cutout in the PDB (See Figure 3A)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hogarth and Danner et al. (US 2002/0044642 A1).

In regard to Claim 5

Hogarth teaches providing 12V DC power (wires 26) and telephone cable (wires 28) but fails to teach a voltage of about 48 volts DC.

Danner et al. teaches that the standard telephone line voltage is 48 volts DC (See Paragraph 62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a telephone line for supporting the standard 48V DC voltage applied to the lines as taught by wire (28) of Hogarth (See Column 2, Line 59 to Column 3, Line 12). The motivation would have been to provide a power connector that could be universally used with the standard voltages found in the United States.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Shirakura et al. (US 2002/0137382) teaches a power adapter device which is capable of inputting either AC or DC power with a common connector and outputting to a device (See Figure 2)
- Stevens (US 5,835,350) teaches a board mountable power supply comprising conductive layers and cutout (See Figure 1 & 2)

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- Malkowski, Jr. et al. (US 2003/0072144) teaches a power connector incorporating both AC and DC voltages (See Paragraph 28)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJC

January 11, 2006


BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800